NEVADA STATE BOARD OF NURSING

Practice Decision Regarding Removal of an Epidural Catheter

Opinion Question:
Can a Registered Nurse with the appropriate training remove an epidural catheter (as defined)?

Recommendation:
The Nevada State Board of Nursing has determined that a Registered Nurse, who has completed the appropriate training and follows all applicable competency regulations under NAC 632, may be authorized to perform the task of removing an epidural catheter, as defined, post surgery/procedure, with a physician or CRNA order. Only nylon/silastic or derivatives of non/silastic catheters may be removed by a qualified Registered Nurse.

The following epidural catheters **may not** be removed by a Registered Nurse:

1. Metal or spring epidural catheters.
2. Any tunneled epidural catheter.
3. Spinal cord stimulators placed in the epidural space.

Consumer Safety:
Safety is assured by following all the recommendations of this opinion which includes a specific training program and annual competency skill validation when a qualified Registered Nurse removes an epidural catheter (as defined), that has been placed by an Anesthesiologist or a Certified Registered Nurse Anesthetist (CRNA). This practice would be comparable to removal of femoral sheath catheters, removal of arterial line catheters and removal of PICC lines which is currently within the scope of practice of a Registered Nurse.

Removal of an epidural catheter will be the responsibility of the qualified Registered Nurse only after appropriate training and documentation of catheter integrity and site integrity. Consumer safety may be documented through Quality Assurance/infection Control monitors.

For consumer safety, the qualified Registered Nurse may remove percutaneously inserted epidural catheters.

Intervention and documentation with a patient should include site care and cleanliness, removal of protective barriers, hygiene, indications of infection and fluid leakage.

Public Interest:
The removal of an Epidural catheter by a Registered Nurse allows the patient to have a broader option for elective epidural pain management while maintaining a safe environment for the patient. Continued or additional epidural pain management is not always a choice when a physician is responsible for removing the catheter at the completion of a case or procedure.

Practitioner Safety:
Only Registered Nurses with the appropriate didactic and clinical return demonstration skills training, in collaboration with the facility policies and procedural support, may participate the removal of epidural catheters. The didactic portion of the education program should include but is not limited to, anatomy, physiology, related pharmacology, assessment, contraindications, exceptions, emergency preparedness and intervention.

Competency Mechanisms:
A specified number of return demonstrations must be completed at the end of the initial training. Annual skills validation must be demonstrated and documented as part of each facilities education program. Each nurse must meet all the competency requirements as set forth in NAC 532.

Nursing Process:
Removal of an epidural catheter may be considered within the scope of practice of the Registered Nurse and only performed following the completion of didactic and clinical training. A policy and procedure should be developed specifically for the practice, and implemented in each facility following the nurse process.

This procedure can be performed in any relevant department of each facility by a qualified Registered Nurse. The areas impacted by this practice change would include obstetrical and surgical services post anesthesia recovery units, out-patient services, ambulatory surgical centers, critical care and medical-surgical units.

Annual documentation of competency and skills will be monitored by the Chief Nurse in accordance with NAC 632.224 and 632.225. Infection control monitors may be employed to measure infection rates.

Literature Search:
Included in the literature search is a position statement form the American Nurses Association. This position statement was written in collaboration with Deleware Board of Nursing (6/90); Louisiana Board of Nursing (1/90; Ohio Board of Nursing (3/92); Oklahoma Board of Nursing (Fall/92); Wyoming Board of Nursing (Spring/1993); and, South Carolina Board of Nursing (3/93).

Additional references for revision on July 19, 2006:
Hayek, S.M., Paige, B, Kapural, L., Stanton-Hicks, M. & Mekhail, N. Complications of Tunneled Epidural Catheters in Non-Cancer Patients with Regional Pain, Anesthesiology 2003; 99:A1111
Aram, L, Krane, E.J. Kosloski, L.J. & Yaster, M. Tunneled epidural catheters for prolonged analgesia in pediatric patients, Anesth Analg. 2001 June: 92 (6): 1432-1438
Epidural Administration of Medication (24867) Publish Date: 9/26/2005
Pain: Clinical Manual, page 236. Copyright 1999, Mosby, Inc.

Standardization Procedures:
The standard of practice is found in the position statements noted above.

Impact: Fiscal/Manpower:
Removal of epidural catheters by qualified Registered Nurses will decrease cost to the patient by eliminating the additional visit by the physician or CRNA.

The impact on manpower will increase the continuity of patient nursing care. The Registered Nurse will have the ability to assess the patient's pain levels prior to the removal of the epidural catheter, and with specific physician order, administer additional pain management medications through the epidural catheter in a more timely manner, if necessary.

Type of function:
The qualified Registered Nurse will work as a team member with the attending physician, consulting Anesthesiologist, or CRNA.

Application to Past Decision:
Currently, qualified nurses in the State of Nevada may:

a. remove mediastinal drainage tubes (11/86
b. insert and remove PICC lines (12/92)
c. remove arterial lines
d. remove femoral sheaths
e. instill reversible opioid agonists, via an epidural catheter.

Definition of Terms:

1. Epidural Catheter – Catheter placed within the epidural space, the space is bordered anteriorly by the duramater and posteriorly by the ligamentum flavum and that which envelops the duramater and its contents from the foramen magnum superiorly to the sacrococcygeal membrane inferiorly.
2. Intrathecal Catheter: Catheter placed within the subarachnoid space (usually at the lumbar level), the space within the dura and arachnoid layers surrounding the spinal cord which contains spinal fluid.
3. Epidural or Spinal Analgesia: Terms applied to the pain relief produced by the administration of narcotics and/or dilute local anesthetic solutions into the epidural or intrathecal space or treatment or relief of pre-surgery pain (e.g., labor pain), post-surgery acute pain, cancer pain, chronic back pain, post-trauma pain, or for acute medical conditions, which may include corticosteroid treatments.
4. Epidural or Spinal Anesthesia: Terms applied to the production of surgical anesthesia by local anesthetics, sometimes in combination with narcotics, in which the epidural or intrathecal solution is concentrated enough to provide a complete anesthetic for specific surgical or therapeutic (e.g., lithotripsy) procedures within an operating room.
5. Intrapleural Catheter: Catheter placed with the intrapleural space.

6. Peripheral Nerve Infusion Device: Catheter inserted to block or ease pain related specific peripheral nerves (i.e., brachial plexus).
7. Bolus Dosing: A concentrated mass of medication administered at one time, in a specified time period, through an intravenous and/or specialized catheter access route via syringe (i.e. push).
8. Regulated Medication Administration Delivery System: An implantable devise or external electronic pump designed ton control, over a period of time, the administration of the medication in order to maintain a constant, consistent medication level. This system should include a security method/device which would prevent bolus dosing/test, i.e., PAC pump.
9. Tunneled Epidural Catheter: A catheter placed in the epidural space and tunneled subcutaneously resulting in an exit site some distance away from the insertion site, usually the patient's abdomen.

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